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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,135	06/25/2003	Takayuki Toshima	199372002501	4004
7590	06/02/2005		EXAMINER	
David L. Fehrman Morrison & Foerster LLP 35th Floor 555 W. 5th Street Los Angeles, CA 90013			PERRIN, JOSEPH L	
			ART UNIT	PAPER NUMBER
			1746	
DATE MAILED: 06/02/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,135

Applicant(s)

TOSHIMA ET AL.

Examiner

Joseph L. Perrin, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 51-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. In response to applicant's response filed 25 February 2005, the status of the application is as follows:

Title Objection

The objection to the title is withdrawn in view of applicant's submission of a new title.

Rejection under 35 U.S.C. §103

Applicant's arguments have been fully considered but they are not persuasive.

Re claim 51, applicant argues that the cited references are unrelated to the claimed "resist film". However, the limitation "for processing a substrate, the substrate having a resist film on a surface thereof" is intended use and given little patentable weight in apparatus claims. Such language does not impart any structural limitations to the claimed apparatus. MPEP 2115 and caselaw is replete with teachings disclosing that expressions relating an apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)).

Further re claim 51, applicant argues that the cited references are unrelated to “a control unit for controlling ...”. However, the language “for controlling...” is considered intended use and given little patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 51-60 & 63-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaartstra in view of Smith, Jr.

Re claims 51-54 & 57-60, Vaartstra discloses a semiconductor processing apparatus including a process vessel 14, a substrate holding member 118, a plurality of supply sections including ozone and water (see, for instance, col. 3 lines 6 & 21) connectable to flow controllers 120, a solvent heater 124 which generates and heats solvent vapor (of the type supplied by Watlow Co. which are well known to include temperature controllers), a main heater 132 controlled by temperature control unit 130, a discharge flow controller 136 (see Figures 2-3 & col. 8, line 64 – col. 9, line 67).

Re claims 55-56 & 63-64, Vaartstra discloses using a purge gas supply (col. 8, lines 40-42). It is noted that the heater 124, which is inline with the fluid supplies, is capable of heating the gas which would produce a hot gas source.

Although Vaartstra discloses controlling the temperature and pressure of the heating mechanism (see, for instance, col. 9, line 38 *et seq.*) and appears to implicitly disclose an automated system, Vaartstra does not explicitly disclose using a control unit to control all such variables such as temperature and pressure. The prior art is replete with teachings of automated systems controlled and operated by a "control unit" (computer). For instance, Smith, Jr. teaches that it is well known in a semiconductor processing system to provide a control unit (computer 200) for the purpose of monitoring, controlling and adjusting variables of operation such as "temperature" and "valve positions" (pressure).

Therefore, the position is taken that a person of ordinary skill in the art at the time the invention was made would have been motivated to modify the system of Vaartstra with the computer system of Smith, Jr. for the purpose of controlling operating parameters such as temperature and pressure. Moreover, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to control such operating parameters by automation via a control unit or computer since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

4. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vaartstra and Smith, Jr. as applied to claim 51-60 & 63-64 above, and further in view of McConnell.

Recitation of Vaartstra and Smith, Jr. are repeated here from above.

Although Vaartstra discloses draining the processing fluid, Vaartstra does not explicitly disclose using condensing means. It is noted that the prior art is replete with teachings of fluid condensing fluid to remove vapors from a system.

McConnell discloses a photoresist stripping apparatus (col. 1, line 36) using ozone (ozone injection valve 206) and further including a "mist trap" having a cooling unit and discharge unit (see Figure 2, steam condenser 171 including draining means, venting means and condenser coil; col. 19, line 58 *et seq.*).

Therefore, the position is taken that a person of ordinary skill in the art at the time the invention was made would have been motivated to modify the system of Vaartstra and Smith, Jr., with the fluid condensing means of McConnell for the purpose of recovering/removing vapor phase fluids in a wafer processing system due to the well known advantages of using condensers to recover/remove vapor phase fluids.

5. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vaartstra, Smith, Jr., and McConnell as applied to claim 61 above, and further in view of Shortes.

Recitation of Vaartstra, Smith, Jr., and McConnell are repeated here from above. However, none of the references explicitly disclose using an ozone killer. Shortes teaches that it is known to provide a photoresist stripping apparatus with a means for killing/decomposing ozone upon exhausting excess ozone "as a safety precaution because of the inherently dangerous nature of ozone." (see col. 4, lines 33-42 & ozone reducing scrubber 23 of Figure 1) Therefore, the position is taken that a person of ordinary skill in the art at the time the invention was made would have been motivated to modify the combination of Vaartstra, Smith, Jr., and McConnell with the ozone scrubber of Shortes for the purpose of decomposing ozone to elemental oxygen to minimize hazardous materials from being exhausted/vented to the atmosphere.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

7. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph L. Perrin, Ph.D.
Examiner
Art Unit 1746

jlp